

17

Likewise as in Example 32, the title compound was obtained as yellow oil with yield of 63.4%. Mass spectrum (m/z): 362 (M<sup>+</sup>), 364 (M<sup>+</sup> + 2).

## EXAMPLE 69-71

Likewise as in Example 16 and 31, the compounds listed in Table 6 were synthesized.

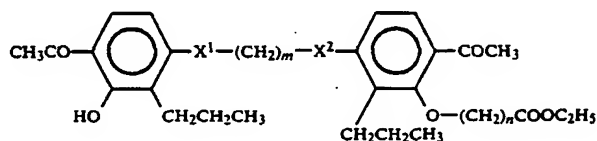


TABLE 6

Ex.	X <sup>1</sup>	X <sup>2</sup>	m	n	Yield (%)	mp (°C.)	Analysis (%)	Calcd./Found
69	SO	S	3	3	69.9	oil	C: 63.02 63.03	H: 7.17 7.16
70	SO <sub>2</sub>	S	3	3	77.8	oil	C: 61.36 61.44	H: 6.98 6.98
71	SO <sub>2</sub>	SO	3	3	68.3	oil	C: 59.78 59.97	H: 6.80 6.85

## EXPERIMENT 1

Inhibition test of bronchoconstriction in guinea pigs

Male Hartley guinea pig weighing about 450 g was anesthetized with sodium pentobarbital (30 mg/kg.i.p.), and the changes in transpulmonary pressure was measured according to the modified method of Konzett-Rössler (J. Harvey et al., J. Pharmacol. Method. 9, 147-155, 1983). Bronchoconstrictor response was induced by injection of leukotriene D<sub>4</sub> (3 μg/kg) into left jugular vein. Further, indomethacin and propranolol were injected into vein of the animal, prior to the injection of leukotriene D<sub>4</sub>. Test compounds suspended in 5% solution of Gum Arabic were administered orally 2 hours before the injection of leukotriene D<sub>4</sub>. The results of the Experiment are shown in Table 7.

TABLE 7

Example	Dose (mg/kg.p.o.)	Inhibition (%)
33	(1)	
	3.125	28.0
	6.25	40.2
	12.5	63.9
35	50	94.8
	6.25	10.7
	12.5	51.3
	50	92.4
45	1.56	22.4
	3.125	54.2
	6.25	71.3
	12.5	72.7

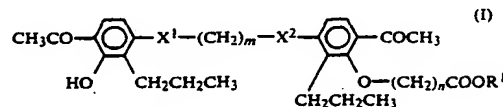
18

TABLE 7-continued

Example	Dose (mg/kg.p.o.)	Inhibition (%)
46	50	96.2
	3.125	38.5
	6.25	46.6
	12.5	37.5
	50	94.2
47	3.125	29.1
	12.5	72.5
	50	92.9
	3.125	33.6
48	12.5	79.7
	50	90.7
	6.25	19.1
	12.5	58.9
49	50	77.7
	(2)	
53	3.125	15.2
	6.25	50.4
	12.5	60.4
	50	66.7
55	6.25	36.4
	12.5	45.0
	50	88.0

What is claimed is:

1. A phenoxyalkylcarboxylic acid derivative represented by the following general formula (I),



wherein R<sup>1</sup> indicates hydrogen atom, methyl group or ethyl group, m is an integer from 2 to 5, n is an integer from 3 to 8, and X<sup>1</sup> and X<sup>2</sup> each independently represent sulfur atom, oxygen atom, sulfinyl group or sulfonyl group, proviso X<sup>1</sup> and X<sup>2</sup> are not simultaneously oxygen atom; their alkali salt or hydrate.

\* \* \* \* \*